systems in control and instrumentation, reactor safety studies, decommissioning and waste management, bio-chemistry and bio-organic chemistry, biology and agriculture, radio isotopes for industrial and medical application etc.

(b) a 220 MWe Pressurised Heavy Water Reactor requires an initial inventory of 61 tonnes followed by 38 tonnes per year as recurring requirements. The initial heavy water inventory is approximately one tonne per MWe of installed capacity with a recurring requirement of about 3 percent of the initial inventory to meet the operating losses. The fuel and heavy water requirements of the presently operting reactors and the future projects will be met totally indigenously from Nuclear fuel Complex and Heavy Water Plants respectively. Thorium would be used as fuel only in the second/third stages of the programme when fast breeder reactors would be used. India has one of the largest reserves of thorium and the technology for fuel fabrication has already been indigenously developed.

Disposal of Nuclear waste

1149. SHRI M. VINCENT : Will the PRIME MINISTER be pleased to state:

(a) whether some concrete methods have been developed to dispose off the nucler waste from the various reactors of the country;

(b) whether Government are aware that the Indian ocean is being mentioned as one of the places to dispose off the nuclear wastes by some foreign countries; and

(c) if so, what measures Government propose to take in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) Yes, Sir. Variety of methods and relevant technologies have been developed and are being successfully used on regular basis to manage solid, liquid and gaseous wastes from the various reactors in the country in a safe and environmentally acceptable manner.

(b) No, Sir.

(c) Not applicable.

Import and Export of Heavy Water

1150. SHRI KAMAL MORARKA:
DR. YELAMANCHILI SIVAJI :

Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that there has been a drift in the matter of nuclear policy;

(b) what are the reasons for the high cost of heavy water produced in India;

(c) what are the norms fixed for exporting heavy water; and

(d) the countries who are importing heavy water from India?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) No, Sir.

(b) The cost of production of Heavy Water depends on the total production achieved and on the unit cost of inputs such as power, Natural gas/Naphtha, wages etc., which over the years has increased steeply.

(c) India does not export Heavy Water.

(d) Does not arise.